

METHOD FOR THE POINT OF USE PRODUCTION OF AMMONIA FROM
WATER AND NITROGEN

ABSTRACT OF THE DISCLOSURE

5 The present invention discloses a method for the manufacture of high purity ammonia, hydrogen, and nitrogen from de-ionized water and standard nitrogen. De-ionized water is degassed and fed to an electrolytic hydrogen generator to produce raw hydrogen. The hydrogen is purified and mixed with purified nitrogen, compressed, and fed to a catalytic ammonia reactor. Following purification, the ammonia is delivered to the semiconductor
10 process tool along with purified hydrogen and purified nitrogen.